DOCUMENT RESUME

ED 247 837 HE 017 485

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TITLE Women's Participation in the Greek Educational System.
PUB DATE Apr 83
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, Montreal, Canada, April 11-15, 1983).
PUB TYPE Statistical Data (110) -- Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Access to Education; Articulation (Education); College Admission; *College Bound Students; *College Entrance Examinations; Educational Change; Elementary Education; Enrollment Trends; *Females; Foreign Countries; Higher Education; Majors (Students); Public Policy; *Secondary Education; *Sex Differences; Trend Analysis
IDENTIFIERS *Greece

ABSTRACT

The evolution of women's participation in the Greek educational system during the last 20 years is considered, with emphasis on present developments. The pattern of this evolution along with educational policy measures and reforms are also discussed. Factors related to women's achievement patterns and mobility between educational levels are also analyzed. While all educational levels are examined, emphasis is on the upper-secondary level as the crucial point of transfer to higher education. Tables are provided on: sex differences in rates of illiteracy, average years of schooling, enrollment rates by educational level, success rates and achievements in primary and secondary education, and success rates of applicants to higher education; and women's participation in higher education by field of study and in specific higher education institutions in Greece. Background information is presented on the Greek selection system for higher education and measures that have been enacted by the government to reform college admissions. Finally, specific changes in the college entrance examination requirements are identified. (SW)

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WOMEN'S PARTICIPATION IN THE GREEK EDUCATIONAL SYSTEM

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Paper presented at the American Educational Research Association conference, Montreal, April 11-15, 1983.

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The purpose of this paper is to examine the evolution of women participation in the Greek educational system during the last twenty years with emphasis in present developments, to relate the pattern of this evolution to educational policy measures and reforms, and to derive working hypotheses about factors related to women achievement patterns and mobility between educational levels.

This is by-and-large a descriptive study, examining participation at all educational levels and achievement patterns with emphasis in upper secondary education at the crucial point of transfer to higher education. It is based on two sources of data: (i) cencus data of the National Statistical Service of Greece; (ii) data collected for a study regarding the evaluation of the selection system for higher education. The latter, derived from a questionaire distributed to a 10% random sample of secondary education graduates-applicants to higher education, is employed for a more refined analysis on specific issues.

To introduce the reader to the educational status of women in Greece I present three tables which summarize illiteracy, average years of schooling, and enrolment rates by educational level (tables 1,2,3). Women participation is summarized in table 4. The reader should keep in mind that women represent approximately 48% of the population in the agegroups 10 through 34; (this percentage increases gradually to 52% for the agegroup 45-64 and to 56% for the agegroup over 65 years).

The analysis of the data indicates the following:

1. Girls participate equally, as boys do, in primary education (table 4) and have the same attendence and pass rates (table 5). But their level of performance differs. So, the proportion of girls achieving a "very good" score (8 or 9 out of 10) is relatively higher than the boys'. The proportion of girls achieving an "excellent" score (10 out of 10) is increasingly higher than the boys' in grades one through six (table 5). These data reveal a pattern which has been identified in other parts of the world and has fostered a variety of explanations:

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the most dominant being that girls comply to required norms and behavior than boys do and that adolescent "problems" which hinder school performance are more prominent in boys than girls. (It should be clear that I do not at the moment propose these explanations for the Greek case).

2. Women used to have lower participation than men in secondary education until the beginning of the seventies (table 4); participation of women and men is equal ever since with one exception: participation of women in upper secondary education is higher (table 4) after the 1976-77 reforms. Those reforms introduced (i) the separation of secondary education to lower and upper, (ii) the establishment of lower secondary as a compulsory educational level, (iii) the formulation of upper secondary as a two track system, one consisting of general education and the second including technical and vocational training. These changes favored women participation in secondary general education since: (i) they were more likely to stop their schooling at the primary level; (ii) they have higher achievement than men and the tracking was decided on the basis of performance at the end of the compulsory level (lower secondary); (iii) they are less likely to follow the technical and vocational track by choice since educational and work prospects in that track are considered "better suited" to men rather than women. It follows that women have lower, though increasing recently, participation in both secondary and higher technical and vocational education (table 4).

3. Women have higher achievement than men at the beginning of secondary education right after a selection process has taken place*(table 6). The difference in the proportions of successes is decreasing with time within the same educational level.

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*This is true both in the case of the school system selection in 1975-76 (from primary to secondary level) as well as in the case of social selection or self selection in 1978-79 when selection at this level had been abolished and introduced as a transfering mechanism from lower to upper secondary level.

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The level of women's performance is higher at this level too. Their proportion achieving a "very good" score (15.6-18.5 out of 20.0) is higher than boys' (table 6). The proportion of women achieving "excellent" (18.6-20.0 out of 20.0) is increasingly higher than boys' both at the lower as well as the upper secondary level. (A more detailed analysis of the differences in the performance of women and men at the upper secondary level is presented in section 4).

Somehow it appears as if women become more self-confident after a selection process has taken place but they (relatively) loose ground in the years that follow. A strong indication of such an "external" factor affecting women self-confidence is provided by the data on applicants and successes to higher education of the study for the evaluation of the selection system. Men evaluated themselves relatively higher than women did, before the results regarding success to higher education were known to them (although women's assessment scores were higher); women's self-evaluation was higher after they knew they had succeded in higher education.

4. Women have higher achievement in upper-secondary education when in-school assessment scores are considered (table 7). There is no significant difference between men and women when external examination assessment scores in the second grade are examined. There is significant difference when external examination assessment scores in the third grade are examined (favoring men). So the reform of 1979 in the selection system* for higher education has favored women since it was based on in-school assessment more than ever before.

5. These developments have led to equal success rates to higher education for women and men (table 8). Equal success rates means in fact a sharp increase in women's participation in higher education since more women than men apply. Further

*See Appendix 1 for a description of the reform.

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changes in the selection system introduced recently by the present government* most likely will not influence women's access to a significant degree: The abolition of the external examination in the second grade greatly favors men (since they do better in the final external exam which now will be the main criterion for success); the introduction of in-school assessment in the first grade (of the upper secondary level) as one of the criteria favors women (though to a lesser degree since it contributes a small proportion to the final score). My expectation is that these two changes are very likely to counterbalance each other with respect to their effect to women success rates.

6. Women have always had and continue to have, though to a considerably lesser degree, unequal access by field of study within higher education. Traditionally women have had increased participation in the humanities, art and architecture**. Recently, though, women have increasing access to law, social sciences and agricultural sciences. It is clear, nevertheless, that they are far behind men in technology and science as it is shown in table 9. Women participation by institution of university education is primarily defermined by the fields of study inluded in the respective academic programs (table 10), while participation by institution of higher general education is occasionally defined by law as a solely "women's" field of study (preschool teachers and home economics teachers, table 10).

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*See Appendix 1

**Women's participation in technology is mainly due to their high representation in architecture.

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A synthesis of the observations discussed above leads me to propose the following questions which I consider essential for the first research project to be undertaken in Greece regarding women performance in the educational system:

1. What is the socialization pattern at work in schools which makes women perform better right after a selection process has taken place, while their performance is relatively lower in the following years?

2. Is there an objective difference in the level of cognitive knowledge between men and women which is expressed in differentiated performance in the final external examination or, alternatively, is there a mystification effect at work regarding external examinations which affects women's performance?

3. Do teachers differentiate their evaluation of in-school student performance by gender, favoring women?

4. If, finally, overall women's performance is as high as men's which are the reasons which lead them to be oriented towards traditionally "womanly" fields of study at the university level?

These questions are geared to provide answers to policy questions related to the maintenance of the achieved balance in the overall participation of women and men in higher education. They will also provide answers regarding aspects of women's participation in the various fields of study at the University level.

It is my conviction that further research on or demands for equality of women's participation in the educational system are not justified. I strongly believe that all emphasis of researchers and women organizations activity should be shifted towards equality in the status of women in the workforce and the academia.

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TABLE 1: Illiteracy rates: illiterates as a percentage of the corresponding age group (1981, estimate).

agegroup		Illiteracy rate	% women
20-24	total	1.39	
	women	1.37	47.56
	men	1.42	
25-29	total	1.77	
	women	1.90	52.39
	men	1.65	
30-34	total	2.10	
	women	2.51	57.74
	men	1.72	
35-39	total	3.65	
	women	4.91	69.00
	men	2.33	
40-54	total	10.06	
	women	14.60	75.48
	men	5.14	
55-74	total	20.50	
	women	31.32	79.81
	men	8.66	
20-74 years old	total	10.05	100.00
	women	15.14	76.72
	men	4.76	23.28

Source: Estimates based on census data of the National Statistical Service of Greece.

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TABLE 2: Education Index 1961, 1971. (Population over 10 years old)

		Average years of schooling	% increase
1961	total	4.96	-
	women	4.14	
	men	5.83	
1971	total	5.70	14.9
	women	4.99	20.5
	men	6.45	10.6
1981 (estimate)	total	6.78	18.9

Sources: 1961, 1971: OECO, Educational Policy and Planning, Educational Reform Policies in Greece, Paris 1980.

1981: Estimate based on cencus data of the National Statistical Service of Greece.

TABLE 3: Enrolment rates by educational level

Educational level	1960		1970		1978	
	Total	Girls	Total	Girls	Total	Girls
Preschool	14	13	30	30	43	42
Primary	110	108	107	105	107	105
Secondary General	33	28	56	54	65	66
Secondary total (it includes technical and vocational)	(39)*	(31)*	(68)	(57)	(77)	(70)
Higher	4**	2**	13	9	19	14

*it includes all levels of technical and vocational education.

**it does not include higher technical and vocational education.

Sources: 1) NSSG, Statistics of Education (respective years).
2) NSSG, Census Data, Population (1960, 1970);
3) NSSG, Statistical Yearbook, 1978.

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TABLE 4: Women participation by educational level 1956-1978.

Year / Educational level	1956-57	1960-61	1965-66	1970-71	1974-75	1978-79
1. Preschool	47.50	47.69	50.12	48.50	48.62	48.44
2. Primary	47.65	47.68	47.79	45.02	48.03	48.19
3. Secondary General	39.03	41.97	44.29	47.66	49.17	lower 47.92 upper 51.07
4. Technical and Vocational	22.30	19.62 (-3.00)	13.10 (-6.65)	15.37 (3.46)	14.70 (-1.09)	20.96 (10.65)
5. Higher T and V	-	-	-	28.16	27.06	33.60 (6.04)
6. Teacher Training	43.08	49.05	53.14	48.28	62.57 (7.40)	53.66 (-3.56)
7. University	20.73	23.01 (2.75)	30.45 (6.47)	30.97 (0.34)	35.17 (3.39)	40.10 (3.50)

Note : the numbers in parenteses show percent average annual change.

Source: Calculated from data in Statistics of Education, National Statistical Service of Greece, (respective years).

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TABLE 5: Success rates and achievement level in primary education. 1978-79

Grade	passed over registered		passed over those who attended		scored 8 or 9 (out of 10) over total successes		scored 10 (out of 10) over total successes	
	girls	boys	girls	boys	girls	boys	girls	boys
1st			94.90	93.11	19.05	18.84	46.53	42.36
2nd			97.90	97.09	19.54	19.04	42.34	36.56
3rd			98.80	98.23	19.60	18.39	35.72	29.20
4th			99.42	99.05	20.90	18.83	33.35	25.05
5th			99.60	99.43	22.17	19.29	29.50	20.96
6th			99.83	99.84	24.12	20.89	32.63	22.69
Total	98.26	97.65	98.42	97.80	20.95	19.24	36.52	29.22

Source: Calculated from data in Statistics of Education, National Statistical Service of Greece (respective years).

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TABLE 6: Success rates and achievement level in secondary education.

Grade	passed over those who sat at the exams 1975-76		passed over those who sat at the exams 1978-79		scored 15.61-18.50 (out of 20) over total successes 1978-79		scored 18.51-20.00 (out of 20) over total successes 1978-79	
	women	men	women	men	women	men	women	men
LOWER								
1st	90.82	84.84	88.25	80.40	31.48	22.33	2.76	1.74
2nd	91.82	86.98	93.62	89.92	28.92	20.02	3.64	2.38
3rd	93.64	90.36	95.37	93.09	30.55	20.88	4.74	2.76
Total (lower)			92.01	86.81	30.35	21.15	3.63	2.24
UPPER								
1st	92.11	87.89	96.18	93.16	30.82	22.69	3.50	2.24
2nd	95.54	93.17	95.70	92.15	33.51	25.24	3.36	2.38
3rd	96.29	93.56	97.41	95.51	32.37	25.04	5.36	3.07
Total (upper)			96.43	93.41	32.12	24.16	4.09	2.55
Total (1975-76 only)	93.08	88.77						

Note: *indicates significant difference of proportions test.

Source: Calculated from data in Statistics of Education, National Statistical Service of Greece (respective years).

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TABLE 7: Achievement in upper secondary education and external examinations (university successes 1980).

Grade / Score	10.0-12.5 (out of 20.0)	12.6-15.5 (out of 20.0)	15.6-18.5 (out of 20.0)	18.6-20.0 (out of 20.0)	number of cases
In-school assessment					
2nd women	—	5.6	39.5	10.0	1116
men	—	7.9	30.2	6.8	908
**					
3rd women	—	2.8	39.2	13.3	1105
men	—	4.4	28.5	11.9	895
**					
External examination assessment					
2nd women	3.2	6.7	17.8	28.1	1004
men	2.8	5.2	11.9	24.3	796
3rd women	3.0	4.8	19.3	28.9	999
men	2.5	3.8	12.3	25.4	787
*					

**: x^2 significant at the .0001 level
*: x^2 significant at the .0277 level

Source: Data collected for the research project "Evaluation of the examination system".

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TABLE 8: Success rates of applicants to higher education.

	Applicants		Success	
	1979	1980	1979	1980
women	54.0	54.0	45.8	54.0
men	46.0	46.0	54.2	46.0
total	100.0	100.0	100.0	100.0

Source: Ministry of Education, Directorate for Computer Services, Fall 1980.

TABLE 9: Women participation in higher education by field of study

Field of Study	1960-61	1970-71	1978-79
1. Humanities	52.8	67.7	75.1
2. Higher School of Fine Arts	37.6	53.9	60.0
3. Law	28.5	37.8	54.2
4. Social sciences	14.7	28.4	38.1
5. Science	19.6	23.1	26.2
6. Technology	11.4	12.5	16.6
7. Medicine and Pharmacy	23.8	25.4	32.4
8. Agricultural studies and Veterinary sciences	5.9	13.8	27.4
All University Education	23.0	31.0	40.1

Source: National Statistical service of Greece, Statistics of Education (respective years).

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TABLE 10:Women participation in higher education by educational institution.

Institution of Higher Education	1960-61	1970-71	1978-79
1. University of Athens	32.5	38.4	49.2
2. University of Salonika	24.5	29.6	38.3
3. University of Thrace	-	-	41.8
4. University of Yannena	-	41.7	51.1
5. University of Patras	-	13.9	21.3
6. National Technical University of Athens	11.2	11.5	16.1
7. School of Economic and Commercial Studies	9.5	21.0	31.0
8. School of Political sciences	18.2	40.2	52.1
9. School of Industrial Stucies of Piraeus	13.6	23.8	29.3
10. School of Industrial Studies of Salonika	17.6	16.2	27.5
11. School of Agricultural Studies	6:4	12.3	28.6
12. School of Fine Arts	37.6	53.9	60.0
All Universities (1)	23.0	31.0	40.1
1. College of Gymnastics	46.6	30.7	36.5
2. College of Home Economics	-	100.0	100.0
3. Teacher Training Colleges	45.5	44.2	45.4
4. Preschool Teacher Training Colleges	100.0	100.0	100.0
All Institutions of Higher General Education (2)	49.1	42.6	53.7

Source: N.S.S.G., Statistics of Education of respective years; 1976-77, 1977-78: Ministry of Education, General Directorate of Higher Education, provisional data.

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APPENDIX 1

A. Reforms in the selection system for higher education:

It must be emphasized at the outset, that numerus clausus is a fact of life in Greece regarding new entrants in the higher education system. The reasons are related to the existing limited capacity of the system, as well as limited resources for any expansion. It is also believed that "overeducation" of the labour force as regards general education at all levels, and the limited absorbing capacity of the labour market for higher education graduates, are also important reasons for the numerus clausus syndrome.

The necessity of a selection system is then obvious. The origins of the Greek educational system in the German and French paradigms, historically predefine that the selection system consist of written examinations, of the essay type. An instrument in the hands of the social elite at first, these examinations were, originally, and for a long period of time, administered by the Universities themselves, independently within each institution.

One of the first measures of the liberal government elected to office in the early sixties, was to develop and enforce a new system of centrally administered entrance examinations. The new system was controlled by the State (Ministry of Education), it was directly related to high school curriculum (rather than the prerequisite demands of individual university faculties) and was administered by school teachers and education superintendents in addition to university professors*.

The second reform of the admission system, in the late seventies, had the following objectives, according to its designers:

- To be geared to high school curriculum, so that "frontistiria" (special private cramming schools) will no longer be a necessity for prospective students to attend.
- To become part of the upper secondary education process itself,

*For a description of the goals set forth by the liberal reformers see G. Polydorides "Equality of Opportunity in the Greek Higher Education System:The Impact of Reform Policies, Comparative Education Review, Vol. 22, No. 1, February 1978.

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in the sense that the examination would become a secondary-school-leaving examination rather than a higher-education-entrance one. All general secondary education students should take the exam, which then becomes the basis for the selection of prospective higher education students.

- To eliminate as much as possible the "chance" factor.
- To eliminate the "queuing" phenomenon. This meant that many students in the past were taking the exams for many consecutive periods, diminishing their own potential for initiating a carreer in a new discipline, as well as limiting at the same time the probability of success of new secondary education graduates.
- To reduce the unnecessary burden for students of participating in examination subjects which were completely unrelated to the field of study they intended to follow.
- To initiate and reinforce technical and vocational education at the upper secondary level.

To achieve these objectives, government policy-makers designed a system which included (beyond the 9-year compulsory education):

(a) Separation of the three-year upper secondary level into general lyceum and technical-vocational lyceum.

(b) Differentiation of the courses in second and third general lyceum grades into "core courses" and "options". There were two options, one for a humanities orientation and one for a science orientation.

(c) Technical and vocational lyceums do not include "options", but additional courses are provided for those interested in participating in the examinations and applying to corresponding higher education fields of study.

(d) A set of four essay examinations were organized for each option-type, in two stages:one after completing second lyceum grade courses and the other after completing third grade courses. These were considered school-leaving examinations administered centrally by the Ministry of Education.

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The results were used both for grading students in the second and third lyceum grades (in the respective courses), as well as criteria for admission to higher education.

(e) There was a predefined content area for each exam. This area was specified as the common denominator of the material taught in all schools in the country.

(f) The admission process was based on the following achievement measures: i) four subject examinations at the end of second lyceum grade
ii) four subject examinations at the end of third lyceum grade
iii) the overall score for second lyceum grade
iv) the overall score for third lyceum grade
v) scores in specific essay examinations depending on the field (school) the student is applying for.

The criticism and controversy which followed implementation of the new school-leaving examination/university selection system focused on the following issues:

(a) The system induced great anxiety to the students because they all had to participate in the external exams. Furthermore, they knew they did not have other chances in the future (only the opportunity to participate once more in two subjects in order to improve their scores).

(b) The system produced a deteriorating effect to the quality and level of classwork during the third lyceum grade. This was due to the fact that a significant proportion of the students felt they had no chances any more to be successful candidates, since their second lyceum grade performance was not satisfactory.

(c) The system significantly hindered any potential for further study within school by the most able students. This was a direct result of the way the content-area for each exam was defined: as a common denominator of all the schools in the country. Therefore, if some schools, for example those in rural areas of the country, did not advance with a satis-

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factory pace in covering their annual material, students from the more advanced schools of the center (Athens and major urban centers) would refuse to work on the advanced material since it would not become part of the exam content-area. The learning process in all schools of the country tended to follow the lead (sic) of the least organized and lower pace schools.

The new socialist government of Greece, which came to power after the elections of October 1981, having to respond to the demands raised as a result of its own pre-election rhetoric, has introduced the following changes:

(a) Abolished the examinations at the second lyceum grade.
(b) Introduced the overall grade point average in the first lyceum grade as an additional admission criterion.
(c) Introduced an additional "option", corresponding to the social sciences.
(d) Allowed the candidates to participate an infinite number of times in the external examinations for university admission.
(e) Increased the coefficient specifying the degree to which in-school evaluation is taken into account for secondary school graduation and university admission, from 18% to 25%.

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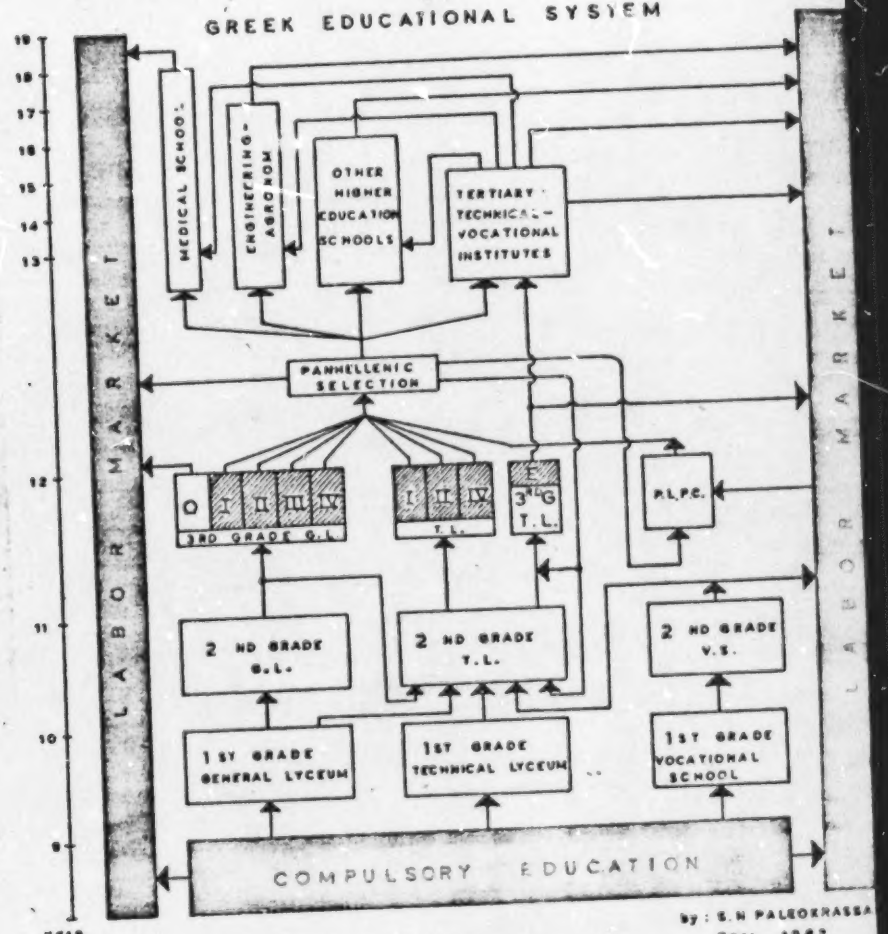
ARTICULATION OF GREEK EDUCATIONAL SYSTEM



by : S.N PALEOKRASSA
Fall 1982

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